

WHAT IS CLAIMED IS:

1. A hydraulic pressure generating apparatus comprising:

a hydraulic oil feed line for feeding hydraulic oil with high  
5 pressure from an oil tank to a hydraulic pressure control system  
of a generator by an oil feeding pump unit;

a hydraulic oil return line for returning drain oil from the  
hydraulic pressure control system to the oil tank; and

a circulation line for circulating and purifying the  
10 hydraulic oil of the oil tank by a circulating pump unit,

wherein the hydraulic oil is flame resistant hydraulic oil  
which is hardly deteriorated by direct heating, and the flame  
resistant hydraulic oil is heated by heating means disposed in the  
oil tank.

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2. A hydraulic pressure generating apparatus comprising:

a hydraulic oil feed line for feeding hydraulic oil with high  
pressure from an oil tank to a hydraulic pressure control system  
of a generator by an oil feeding pump unit;

20 a hydraulic oil return line for returning drain oil from the  
hydraulic pressure control system to the oil tank; and

a circulation line for circulating and purifying the  
hydraulic oil of the oil tank by a circulating pump unit,

25 wherein said hydraulic oil is flame resistant hydraulic oil  
having specific gravity of less than 1.0, and the oil feeding pump  
is of in-tank installation type and disposed on a side upper than a

bottom portion in the oil tank.

3. A hydraulic pressure generating apparatus comprising:

5 a hydraulic oil feed line for feeding hydraulic oil with high pressure from an oil tank to a hydraulic pressure control system of a generator by an oil feeding pump unit;

a hydraulic oil return line for returning drain oil from the hydraulic pressure control system to the oil tank; and

10 a circulation line for circulating and purifying the hydraulic oil of the oil tank by a circulating pump unit,

wherein said control oil is flame resistant hydraulic oil having high oxidation resistance, and the circulation line is of activated clay filter dispensable type.

15 4. A hydraulic pressure generating apparatus comprising:

a hydraulic oil feed line for feeding hydraulic oil with high pressure from an oil tank to a hydraulic pressure control system of a generator by an oil feeding pump unit;

20 a hydraulic oil return line for returning drain oil from the hydraulic pressure control system to the oil tank; and

a circulation line for circulating and purifying the hydraulic oil of the oil tank by a circulating pump unit,

wherein said control oil is flame resistant hydraulic oil having low toxicity.

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5. A hydraulic pressure generating apparatus according to

any one of claims 1 to 4, wherein said flame resistant hydraulic oil is fatty acid ester oil.

6. A hydraulic pressure generating apparatus according to  
5 any one of claims 1 to 4, wherein said flame resistant hydraulic oil has a feeding pressure set to be equal to or more than 6.8 MPa.

7. A hydraulic pressure generating apparatus according to  
any one of claims 1 to 4, wherein said oil feeding pump unit  
10 includes a main oil feeding pump and an auxiliary oil feeding pump in parallel to the hydraulic oil feed line, and said circulating pump unit includes a first circulating pump and a second circulating pump in parallel to the circulation line, said main oil feeding pump and said first circulating pump being of  
15 direct-coupled type, which are simultaneously driven by one motor, and said auxiliary oil feeding pump and said second circulating pump being of direct-coupled type, which are simultaneously driven by another motor.

20 8. A hydraulic pressure generating apparatus according to any one of claims 1 to 4, wherein said hydraulic oil feed line is provided with at least one or more feed oil filters, check valves, and stop valves.

25 9. A hydraulic pressure generating apparatus according to any one of claims 1 to 4, wherein said circulation line is provided

with at least one or more oil coolers, circulating oil filters, check valves, and stop valves.

10. A hydraulic pressure generating apparatus according to  
5 any one of claims 1 to 4, wherein said hydraulic oil feed line and said hydraulic oil return line are connected by a bypass line, and at least one or more stop valves are arranged to the bypass line.

11. A hydraulic pressure generating apparatus according to  
10 any one of claims 1 to 4, further comprising a temperature sensor for sensing temperature in the oil tank, and temperature control means for controlling heating means disposed in the oil tank in accordance with the temperature in the tank sensed by the temperature sensor.

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12. A hydraulic pressure generating apparatus comprising:  
a hydraulic oil feed line for feeding hydraulic oil with high pressure from an oil tank to a hydraulic pressure control system of a generator by an oil feeding pump unit;  
20 a hydraulic oil return line for returning drain oil from the hydraulic pressure control system to the oil tank; and  
a circulation line for circulating and purifying the hydraulic oil of the oil tank by a circulating pump unit,  
wherein said flame resistant hydraulic oil is fatty acid ester  
25 oil which is fed at a feeding pressure set to be equal to or more than 6.8 MPa.

13. A hydraulic pressure generating apparatus comprising:

a hydraulic oil feed line for feeding hydraulic oil with high pressure from an oil tank to a hydraulic pressure control system of a generator by an oil feeding pump unit including a main oil feeding pump and an auxiliary oil feeding pump in parallel to the hydraulic oil feed line, said hydraulic oil feed line being provided with at least one or more feed oil filters, check valves, and stop valves;

a hydraulic oil return line for returning drain oil from the hydraulic pressure control system to the oil tank; and

a circulation line for circulating and purifying the hydraulic oil of the oil tank by a circulating pump unit including a first circulating pump and a second circulating pump in parallel to the circulation line, said circulation line being provided with at least one or more oil coolers, circulating oil filters, check valves, and stop valves,

said main oil feeding pump and said first circulating pump being of direct-coupled type, which are simultaneously driven by one motor, and said auxiliary oil feeding pump and said second circulating pump being of direct-coupled type, which are simultaneously driven by another motor, and

said hydraulic oil feed line and said hydraulic oil return line being connected by a bypass line, and at least one or more stop valves are arranged to the bypass line.

14. A hydraulic pressure generating apparatus according to claim 13, wherein said flame resistant hydraulic oil is fatty acid ester oil which is fed at a feeding pressure set to be equal to or more than 6.8 MPa.

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15. A hydraulic pressure generating apparatus according to claim 13, further comprising a temperature sensor for sensing temperature in the oil tank, and temperature control means for controlling heating means disposed in the oil tank in accordance  
10 with the temperature in the tank sensed by the temperature sensor.